

# METHOD FOR DETECTING AND IDENTIFYING SHORTED THYRISTORS

## Abstract of the Disclosure

A method is provided for determining a shorted thyristor cell in a bridge that supplies a load from a source, the bridge including a plurality of the thyristor cells. The method includes the step of sequentially gating each of the cells to a conducting state, so that only one cell is gated at one time; providing at least one current transformer in the bridge; generating a current flow that passes through the bridge including the one cell that is gated; observing current in the at least one current transformer to determine a short in one of the cells the that is not gated; and determining a shorted cell based on the step of observing current in the at least one current transformer.

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Figures

Figure 1: A schematic diagram illustrating the experimental setup for measuring the time delay of a signal. The diagram shows a signal source (S) connected to a delay line (DL) and a detector (D). The signal source is connected to the delay line, which is connected to the detector. The delay line is labeled with a time delay  $\tau$ . The signal source is labeled with a frequency  $f$ . The detector is labeled with a time delay  $\tau$ . The diagram is labeled with a time delay  $\tau$ .